

Amendments to the Claims:

The following listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A substrate holder for a facility for epitaxial deposition of semiconductor material on a substrate, the substrate holder comprising:

a substrate supporting face;

a holder rear face, which faces away from said substrate supporting face; and

a temperature equalization structure which results in a defined temperature profile over the entire substrate surface of the substrate, which is located on or in the vicinity of the substrate holder, during heating or cooling which occur during the epitaxial deposition,

wherein said temperature equalization structure comprises a stepped relief which is formed on said substrate supporting face of the substrate holder, and comprises at least four steps.

2. (original) The substrate holder as claimed in claim 1, in which the temperature equalization structure results in an as uniform as possible temperature over the entire substrate surface.

3. (canceled)

4. (withdrawn) The substrate holder as claimed in claim 3, in which the three-dimensional structures are formed by at least one groove (4) which runs in the vicinity of the edge.

5. (withdrawn) The substrate holder as claimed in claim 4, in which the width of the groove or grooves (4) is at most 80% of the radius of the substrate holder, and the depth of the groove or grooves (4) is less than the thickness of the substrate holder (1) or of a coating which is located on the substrate supporting face.

6. (withdrawn) The substrate holder as claimed in claim 4, in which the groove or grooves (4) is or are arranged in an annular shape and concentrically.

7. (withdrawn) The substrate holder as claimed in claim 4, in which the distance between the grooves (4) in areas in which relatively high temperatures occur during or after the mentioned process, in particular during the growth of semiconductor material, is less than in the areas in which temperatures which are lower than these occur.

8. (withdrawn) The substrate holder as claimed in claim 4, in which the depth of the grooves (4) is greater in areas in which relatively high temperatures occur during the growth of the semiconductor material than in areas in which temperatures which are lower than these occur.

9. (withdrawn) The substrate holder as claimed in claim 4, in which the groove or grooves (4) has or have a quadrilateral, circular or oval cross section, or a cross section with a segment of one of these shapes.

10. (withdrawn) The substrate holder as claimed in claim 1, in which the temperature equalization structure comprises texturing.

11. (withdrawn) The substrate holder as claimed in claim 10, in which the texturing includes two or more trenches and/or pits, the distance between which is matched to the temperature profile of the substrate holder (1), in such a way that the distance between trenches and/or pits in areas in which relatively high temperatures occur during the growth of the semiconductor material is less than in areas in which temperatures which are lower than these occur.

12. (withdrawn) The substrate holder as claimed in claim 10, in which the texturing includes two or more trenches and/or pits, whose depth is matched to the temperature profile of the substrate holder (1) such that the trenches and/or pits are deeper in areas in which relatively high temperatures occur during the growth of semiconductor material than in areas in which temperatures which are lower than these occur.

13. (withdrawn) The substrate holder as claimed in claim 10, in which the texturing includes

- trenches wherein at least some of these cross one another,
- trenches wherein at least some of these are arranged parallel to one another,

- trenches where at least some of these are curved,
- pits which are in the form of dots, circles or cuboids,
- pits which have a combination of dotted, circular and/or cuboid shapes, or
- trenches and/or pits which have a combination of at least two of the shapes mentioned above.

14. (currently amended) The substrate holder as claimed in claim 1, in which the at least four steps comprise ~~stepped relief comprises two or more~~ circulating steps of different depths.

15. (original) The substrate holder as claimed in claim 14, in which the steps are arranged concentrically and centrally.

16. (previously presented) The substrate holder as claimed in claim 14, in which the stepped relief is continuous.

17. (previously presented) The substrate holder as claimed in claim 14, in which the depth of the steps is matched to the temperature profile of the substrate holder, such that the depth of the steps is greater in areas in which relatively high temperatures occur during the epitaxial deposition of semiconductor material than in areas in which temperatures which are lower than these occur.

18. (previously presented) The substrate holder as claimed in claim 1, in which the substrate supporting face has a substrate support structure, by means of which, when the substrate is supported, a gap is formed between the substrate and the substrate holder.

19. (previously presented) The substrate holder as claimed in claim 18, in which the substrate support structure is designed such that essentially only the edge or those areas of the substrate which are on the edge are supported, and the substrate essentially makes no contact with the substrate holder anywhere else.

20. (withdrawn) The substrate holder as claimed in claim 18, in which the substrate support structure has a step which surrounds the substrate.

21. (withdrawn) The substrate holder as claimed in claim 18, in which the substrate support structure comprises at least one substrate stop for holding the substrate (2), wherein the substrate stop has a substrate support surface (9) above the substrate holder surface.

22. (withdrawn) The substrate holder as claimed in claim 21, in which the substrate stop is formed by means of a hemisphere or a platform (6) with an incision (7), which has at least one substrate support surface (9) parallel to and above the substrate holder surface.

23. (previously presented) The substrate holder as claimed in claim 1, in which a recess is provided on the substrate supporting face of the substrate holder and is at least sufficiently large that the substrate can at least partially be arranged in the recess, parallel to a support surface of the substrate holder.

24. (previously presented) The substrate holder as claimed in claim 1, in which the substrate holder has a surface having a roughness of less than 10 μm .

25. (previously presented) The substrate holder as claimed in claim 1, in which the substrate holder has a ground or polished surface.

26. (previously presented) A facility for epitaxial deposition of a semiconductor material on a substrate, the facility comprising:

at least one reactor;

a gas mixing system; and

an exhaust gas system,

wherein the at least one reactor comprises at least one substrate holder, a mount for the substrate holder and a means for heating, and

wherein the substrate holder is designed as claimed in claim 1.

27. (new) The substrate holder as claimed in claim 1, wherein the substrate holder is essentially composed of solid silicon carbide material.